

REMARKS

Claims 1-11, 14-22, 25-26, 31-32, 34-35, 37, and 39-45 were pending in the application. In the foregoing amendments, claims 1, 10, 18, 31, 34, 35 and 37 have been amended, and claim 2 has been canceled without prejudice and disclaimer to the subject matter disclosed therein. Support for these amendments can be found in the specification and claims of the application as filed. No new matter has been added by these amendments.

In the Final Office Action dated 05/23/2005, the Examiner rejected claims 1, 2, 3, 7, 9, 11, 14, 16, 21, 31, 32, 34, 35, 37, 39-42 and 45 under 35 U.S.C. §102(e) as allegedly being anticipated by Niemela (U.S. Patent No. 6,452,914).

The Examiner rejected claim 4 under 35 U.S.C. §103(a) as allegedly being unpatentable over Niemela in view of Weaver (U.S. Patent No. 5,715,526).

The Examiner rejected claim 5 over 35 U.S.C. §103(a) as allegedly being unpatentable over Niemela in view of Cho (U.S. Patent No. 6,049,633).

The Examiner rejected claims 6, 8 and 20 under 35 U.S.C. 103(a) as allegedly being unpatentable over Niemela in view of Komaili (U.S. Publication No. 2003/0003446A1).

The Examiner rejected claim 15 under 35 U.S.C. §103(a) as being allegedly unpatentable over Niemela in view of Salvarani (U.S. Patent No. 6,760,597).

The Examiner rejected claims 17 and 43 under 35 U.S.C. 103(a) as allegedly being unpatentable over Niemela in view of Dent (U.S. Patent No. 5,430,760).

The Examiner rejected claims 19, 25, 26 and 44 under 35 U.S.C. 103(a) as allegedly being unpatentable over Niemela in view of Halford (U.S. Patent No. 6,614,836).

The Examiner rejected claim 22 under 35 U.S.C. 103(a) as allegedly being unpatentable over Niemela in view of Lundh (U.S. Patent No. 6,718,180).

The Examiner also objected to claims 10, 18, and 42 because of the informalities.

Applicants respectfully request entry of the foregoing amendments and reconsideration of the application in light of the amendments above and the remarks below.

Claims 11, 32, 45 and Their Dependent Claims

Niemela discloses a signaling method in a wireless telecommunication system, where the signals between a base station and a terminal comprise bursts generated from symbols, and the stealing symbols of a normal burst are used for signaling. The desired signaling messages are then coded into code words of a particular length and are added to the stealing symbols of a normal burst. The tables in FIGS. 3a-3b and FIG. 4 show an example of the signaling messages needed in the power control signaling (see col. 4, lines 49-56). Note, in Niemela, the power control parameters shown in FIGS. 3a-3b indicate *the desired power transmission levels as conveyed by the corresponding signaling messages, as opposed to the actual power levels at which the signaling messages are transmitted*. Further, Niemela is silent with respect to how codewords are assigned to the signaling messages in any of the tables shown in FIGS. 3a-3b and FIG. 4.

The Office Action also states that “Dent teaches discloses higher transmit power levels are assigned with codewords having larger distances to their nearest neighbors (see col. 13, lines 20-45; see col. 14, lines 20-35; greater power level for greater distance for each codeword),” see page 13 of the Office Action. Applicants respectfully point out that Dent is devoid of any mention of “codewords having larger distances to their nearest neighbors.” The “distance” as quoted in Dent refers to, instead, *the distance between the mobile state 10 and the base station 20*. For example, Dent states that “The greater the power level required, the greater the distance between the mobile station 10 and the base station 20, and the earlier the access message must be sent to be properly time aligned” (see col. 14, lines 28 -32).

Thus, neither of the cited references, alone or in combination, teaches or suggests “.....determining a transmit power level for the identified codeword, based at least in part on a distance of the identified codeword to its nearest codeword in the alphabet and transmitting the identified codeword from the first entity to the second entity at the determined transmit power level,” as recited in claim 11, 32, or 45. For at least these reasons, independent claims 11, 32, and 45 are patentable over the cited references. Applicants respectfully request that the rejections of these claims be withdrawn.

Claims 14-22, 25-26, 34, and 43-44 each depend from one of independent claims 11, 32, and 45, and are allowable as well. Applicants respectfully request that the rejections of these claims be withdrawn.

Claims 1, 31, 35, 37 and Their Dependent Claims

As stated above, Niemela discloses a signaling method in a wireless telecommunication system, where the stealing symbols of a normal burst are used for signaling and the desired signaling messages are coded into code words of a particular length and are added to the stealing symbols of a normal burst. Niemela, however, fails to teach or suggest how codewords are assigned to the signaling messages (such as those shown in FIGS. 3a-3b and FIG. 4).

The Office Action also takes the position that Niemela discloses “the codeword having a minimum distance (see col. 5, lines 5-25; a codeword with minimum distance) based at least in part on the state of the communication link (see col. 4, lines 54 to col. 5, line 5; codeword is determined according to the power control process/state of the radio link....,” see page 3 of the Office Action. What is disclosed in Niemela, instead, is that “Hamming distances between the code words are sufficient in order to provide a detection that is as flawless as possible. The detection may preferably be based on searching for a minimum distance, *in which case a detector searches for a code word that is closest to the received bit figure*” (see col. 5, lines 8-13). In other words, the detection is performed in Niemela by searching for a codeword that has the *least* (or minimum) distance to the received bit figure.

As such, neither Niemela nor other cited references, alone or in combination, teaches or suggests “.....assigning a codeword to the message, the codeword being selected from an alphabet of a plurality of codewords, a minimum distance of the codeword to its nearest codeword in the alphabet being associated with the state of the communication link....,” as recited in amended claim 1, 31, 35, or 37 (emphasis added). For at least these reasons, independent claims 1, 31, 35, and 37 are patentable over the cited references. Applicants respectfully request that the rejections of these claims be withdrawn.

Claims 3-10 and 39-42 each depend from one of independent claims 1 and 31, and are allowable as well. Applicants respectfully request that the rejections of these claims be withdrawn.

Claims Objections

In the foregoing amendments, claims 10 and 18 have amended to correct typographical errors, thus obviating the objections of these claims. Applicants respectfully point out that claim 42, as previously presented, did/does not contain the error as indicated in the Office Action.

Allowable Subject Matter

In the Office Action, claims 10 and 18 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for the indication of allowable subject matter.

In light of claims 10 and 18 each dependent from one of independent claims 1 and 11, they are allowable for at least the reasons that claims 1 and 11 are allowable, as stated above.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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